

### **What is a milk allergy?**

A milk allergy is a reaction by your child's immune system to the protein in milk. Our immune systems normally respond to bacteria or viruses that attack the body. A food allergy occurs when the body's immune system mistakenly believes that a harmless substance (such as the proteins found in milk) is harmful. In order to protect the body, the immune system creates substances called antibodies to that food. The next time you eat that particular food, your immune system releases huge amounts of chemicals, such as histamines, to protect the body. This is what causes the symptoms.

Casein is the main protein found in milk. It is found in the solid part of milk (curd) when milk goes sour. Whey, the liquid that remains once the curd is removed, contains the rest of the proteins. Your child can be allergic to the proteins in curd, whey, or both.

In very young children, cow's milk is the leading cause of allergic reactions. Milk is one of the 8 foods that are responsible for most food allergies in children. The other foods include eggs, soy, peanuts, tree nuts (such as walnuts and cashews), wheat, fish, and shellfish. Most kids outgrow milk allergy by 2 or 3 years of age.

If you think your child is allergic to milk, dairy products or any other food, it is important to get a diagnosis from your healthcare provider or allergist.

### **What are the symptoms of an allergic reaction to milk?**

Milk allergies are typically discovered very early in formula and breast-fed infants. If a mother drinks cow's milk, the milk protein also comes out in her breast milk. The symptoms seen in milk allergy depend on whether the child has a slow or a rapid reaction to milk. The slower reaction is more common and symptoms develop over time.

Symptoms that occur slowly (several hours and sometimes days):

- Loose stools (sometimes containing streaks of blood and/or mucus)
- Diarrhea, abdominal cramping
- Intermittent cough, wheezing, runny nose, or sinus infection
- Skin rash
- Slowed gain in weight and/or height (failure to thrive).

Symptoms that occur rapidly (within seconds to hours) may include:

- Wheezing
- Vomiting
- Skin reaction (hives).

A milk allergy is not the same as lactose intolerance. Lactose intolerance affects only the digestive tract. It causes symptoms such as bloating, gas and diarrhea.

Although rare, it is possible to have an allergic reaction called anaphylactic shock. This is a serious reaction that is sudden, severe, and can involve the whole body. It can cause swelling of the mouth and throat, dangerously lower blood pressure, and trouble breathing. This type of reaction is a medical emergency. It is treated with epinephrine (a medicine that is given by injection). Usually parents or caregivers of children who have severe allergic reactions carry their own shot kits, just in case of emergency.

### **What formulas are best for my baby?**

Pediatricians typically recommend soy-based formulas. These formulas contain soybean proteins, and most have added vitamins and minerals. The switch to soy formula helps for about half of babies allergic to milk. If the switch to soy doesn't help with your child's symptoms, the next step is to give your child a "hypoallergenic" formula. There are two types of hypoallergenic formulas:

- **Extensively hydrolyzed formulas:** The proteins in these formulas have been broken down so that they are more easily digested and less likely to cause a reaction. Examples include Nutramigen with Enflora LGG, Pregestimil LIPIL, and Similac Expert Care Alimentum. Partially hydrolyzed formulas are not a good substitute.
- **Elemental formulas:** The proteins in these formulas are in the simplest form and are used when hydrolyzed formula continues to cause symptoms. Elemental formulas include Neocate, Elecare, and Nutramigen AA LIPIL.

### **Can I still breast-feed?**

Breast-feeding a baby with a milk allergy is sometimes recommended. If your baby is diagnosed with a milk allergy, you should avoid milk products in your diet. Keep taking prenatal vitamins and eat foods with lots of calcium and vitamin D. Talk with your healthcare provider about this.

### **How will this affect my older child's diet?**

The only treatment for a child with a milk allergy is to completely avoid milk and foods that contain milk products. Many processed foods and restaurant foods contain milk or milk products. You will need to change the way you shop and prepare foods. The first step is to learn to read labels and become familiar with ingredients that contain milk or dairy products. Always ask about ingredients if you are not sure. Study the lists below to learn more about foods and ingredients to watch out for.

#### **Foods and ingredients that contain milk:**

- Milk (including milk from other animals such as goat)
- Yogurt
- Cheese
- Cottage cheese
- Half & half
- Cream
- Sour cream and solids
- Casein
- Whey products
- Butter, butterfat, butter oil, natural butter flavor, butter solids
- Artificial butter flavor
- Ingredients that begin with "lact" such as lactose, lactate, lactalbumin, and lactic acid
- Chocolate
- Custard
- Ghee
- Nougat
- Caramel
- Fat replacers such as Simplese
- Hydrolyzed milk
- High protein powders and flours often contain milk proteins
- Artificial and natural flavorings such as for meat, poultry, canned fish, and potato chips.

Reading labels to avoid allergens has become a lot easier. Foods that contain milk, eggs, fish, shellfish, peanuts, tree nuts, wheat, or soy products must list the food in plain language on the ingredient list. For example, casein (milk). These possible allergens must be listed even if they are part of a flavoring, coloring, or spice blend. There are still some things to watch out for when reading food labels:

- Read the label every time. The manufacturer may change ingredients.
- Watch out for the words "may contain". Milk, peanuts, or other allergens may not be ingredients, but the food may be made in a factory that also produces these foods. If you see the words "may contain", there may be very little of the allergen, or there may be a large amount.
- Words on the package such as "milk free" do NOT mean that the food is completely without these allergens. You still need to read the label carefully to make sure that it does not contain ingredients derived from allergens.

It is very important for you to know less common names and scientific names for food ingredients.

### **How do I avoid cross contamination?**

Cross contamination occurs when a dairy food or something that has been used to process a dairy food comes in contact with your child's food. This can happen when eating out or at home.

To avoid this problem when dining out or buying food:

- Order simple dishes with only a few recipe ingredients.
- Avoid battered or fried foods. The oil is often used for many different items, some of which may contain milk.

- Tell the waiter or waitress about the allergy.
- Make sure the meat slicer at the deli counter is not also used to cut cheese.
- Separate cooking utensils, cutting boards, and dishes used to prepare dairy products from those used to prepare foods for your child.

#### **How can I provide my child with a healthy diet that tastes good?**

Your child can still have a healthy diet as well as continue to enjoy some kid favorites. The main nutrients found in milk are protein, calcium, vitamin D, and riboflavin. It is important to either take supplements or eat foods high in these nutrients.

There is a lot of protein in meat, poultry, pork, fish, beans, soy foods, legumes, nuts and seeds. Ask your provider about calcium and vitamin D supplements. Good sources of riboflavin are meat and eggs, whole-grain or enriched breads and cereals, and dark green leafy vegetables. Many foods (such as orange juice) are now supplemented with calcium and vitamin D. It is a good idea to have a registered dietitian check your child's diet to make sure your child is getting needed nutrients.

#### **How do I substitute milk and modify recipes?**

There are several brands of soy and rice milks that are enriched with calcium. These can be used for drinking and to pour on cereal. If milk is part of a recipe just to provide liquid, you can substitute water. Soy and rice milk, as well as fruit juice work well as substitutes when baking. Oils, milk-free margarines or soy butter can take the place of butter. Vegan products, available in the health food section of grocery stores, are another option. These products do not contain eggs or milk.

It is also helpful to get cookbooks for people with food allergies, such as the NEW-Food Allergy and Anaphylaxis Network (FAAN) Cookbook - Cooking Allergy-Free Everyday. Visit the Web site at <http://foodallergy.org> or call 800-929-4040 to order this cookbook and others. There are also Web sites where you can buy specialty foods online (such as <http://www.allergygrocery.com>).

#### **How can I keep my child safe at school?**

Teach your child not to eat foods unless they are safe. Even young children can grasp this concept, especially once they have gotten sick after eating a particular food.

Prepare your child's lunch at home.

Talk with teachers and the school administrator about your child's needs. Ask teachers to keep an eye out and explain the situation to other children if needed.

Have the teacher call you if there is a special event or party planned so that you can bring a few modified treats that your child enjoys and can share with other kids.

Make a card that lists foods and ingredients that should be avoided and give one to the teacher. The card can also help older children make decisions when out with friends.